notes under sections 32, 102, and 111 of this title], the amendments made by this section shall take effect upon the expiration of the 18-month period beginning on the date of the enactment of this Act [Sept. 16, 2011], and shall apply to any application for patent, and to any patent issuing thereon, that contains or contained at any time—

"(A) a claim to a claimed invention that has an effective filing date as defined in section 100(i) of title 35, United States Code, that is on or after the effective date described in this paragraph; or

"(B) a specific reference under section 120, 121, or 365(c) of title 35, United States Code, to any patent or application that contains or contained at any time such a claim.

"(2) Interfering patents.—The provisions of sections 102(g), 135, and 291 of title 35, United States Code, as in effect on the day before the effective date set forth in paragraph (1) of this subsection, shall apply to each claim of an application for patent, and any patent issued thereon, for which the amendments made by this section also apply, if such application or patent contains or contained at any time—

"(A) a claim to an invention having an effective filing date as defined in section 100(i) of title 35, United States Code, that occurs before the effective date set forth in paragraph (1) of this subsection; or

"(B) a specific reference under section 120, 121, or 365(c) of title 35, United States Code, to any patent or application that contains or contained at any time such a claim."

EFFECTIVE DATE OF 1999 AMENDMENT

Amendment by Pub. L. 106–113 effective Nov. 29, 1999, and applicable to any patent issuing from an original application filed in the United States on or after that date, see section 1000(a)(9) [title IV, §4608(a)] of Pub. L. 106–113, set out as a note under section 41 of this title.

§ 101. Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

(July 19, 1952, ch. 950, 66 Stat. 797.)

HISTORICAL AND REVISION NOTES

Based on Title 35, U.S.C., 1946 ed., $\S 31$ (R.S. 4886, amended (1) Mar. 3, 1897, ch. 391, $\S 1$, 29 Stat. 692, (2) May 23, 1930, ch. 312, $\S 1$, 46 Stat. 376, (3) Aug. 5, 1939, ch. 450, $\S 1$, 53 Stat. 1212).

The corresponding section of existing statute is split into two sections, section 101 relating to the subject matter for which patents may be obtained, and section 102 defining statutory novelty and stating other conditions for patentability.

Section 101 follows the wording of the existing statute as to the subject matter for patents, except that reference to plant patents has been omitted for incorporation in section 301 and the word "art" has been replaced by "process", which is defined in section 100. The word "art" in the corresponding section of the existing statute has a different meaning than the same word as used in other places in the statute; it has been interpreted by the courts as being practically synonymous with process or method. "Process" has been used as its meaning is more readily grasped than "art" as interpreted, and the definition in section 100(b) makes it clear that "process or method" is meant. The remainder of the definition clarifies the status of processes or methods which involve merely the new use of a known process, machine, manufacture, composition of matter, or material; they are processes or methods under the statute and may be patented provided the conditions for patentability are satisfied.

LIMITATION ON ISSUANCE OF PATENTS

Pub. L. 112-29, §33, Sept. 16, 2011, 125 Stat. 340, provided that:

"(a) LIMITATION.—Notwithstanding any other provision of law, no patent may issue on a claim directed to or encompassing a human organism.

"(b) EFFECTIVE DATE.—

"(1) IN GENERAL.—Subsection (a) shall apply to any application for patent that is pending on, or filed on or after, the date of the enactment of this Act [Sept. 16, 2011].

"(2) PRIOR APPLICATIONS.—Subsection (a) shall not affect the validity of any patent issued on an application to which paragraph (1) does not apply."

§ 102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless—
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

(c) he has abandoned the invention, or

(d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States, or

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language; 1 or

(f) he did not himself invent the subject matter sought to be patented, or

(g)(1) during the course of an interference conducted under section 135 or section 291, another inventor involved therein establishes, to the extent permitted in section 104, that before such person's invention thereof the invention was made by such other inventor and not abandoned, suppressed, or concealed, or (2) before such person's invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

¹ So in original. The semicolon probably should be a comma.

(July 19, 1952, ch. 950, 66 Stat. 797; Pub. L. 92–358, §2, July 28, 1972, 86 Stat. 502; Pub. L. 94–131, §5, Nov. 14, 1975, 89 Stat. 691; Pub. L. 106–113, div. B, §100(a)(9) [title IV, §§4505, 4806], Nov. 29, 1999, 113 Stat. 1536, 1501A–565, 1501A–590; Pub. L. 107–273, div. C, title III, §13205(1), Nov. 2, 2002, 116 Stat. 1902; Pub. L. 112–29, §3(b)(1), Sept. 16, 2011, 125 Stat. 285.)

AMENDMENT OF SECTION

Pub. L. 112–29, §3(b)(1), (n), Sept. 16, 2011, 125 Stat. 285, 293, provided that, effective upon the expiration of the 18-month period beginning on Sept. 16, 2011, and applicable to certain applications for patent and any patents issuing thereon, this section is amended to read as follows:

§ 102. Conditions for patentability; novelty

- (a) Novelty; Prior Art.—A person shall be entitled to a patent unless—
 - (1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or
 - (2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

(b) Exceptions.—

- (1) Disclosures made 1 year or less before the effective filing date of the claimed invention.—A disclosure made 1 year or less before the effective filing date of a claimed invention shall not be prior art to the claimed invention under subsection (a)(1) if—
 - (A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or
 - (B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.
- (2) Disclosures appearing in applications and patents.—A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if—
- (A) the subject matter disclosed was obtained directly or indirectly from the inventor or a joint inventor;
- (B) the subject matter disclosed had, before such subject matter was effectively filed under subsection (a)(2), been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or
- (C) the subject matter disclosed and the claimed invention, not later than the effective filing date of the claimed invention, were owned by the same person or subject to an obligation of assignment to the same person.
- (c) Common Ownership Under Joint Research Agreements.—Subject matter disclosed and a claimed invention shall be deemed to have been

owned by the same person or subject to an obligation of assignment to the same person in applying the provisions of subsection (b)(2)(C) if—

- (1) the subject matter disclosed was developed and the claimed invention was made by, or on behalf of, 1 or more parties to a joint research agreement that was in effect on or before the effective filing date of the claimed invention;
- (2) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and
- (3) the application for patent for the claimed invention discloses or is amended to disclose the names of the parties to the joint research agreement
- (d) Patents and Published Applications Effective as Prior Art.—For purposes of determining whether a patent or application for patent is prior art to a claimed invention under subsection (a)(2), such patent or application shall be considered to have been effectively filed, with respect to any subject matter described in the patent or application—
 - (1) if paragraph (2) does not apply, as of the actual filing date of the patent or the application for patent; or
 - (2) if the patent or application for patent is entitled to claim a right of priority under section 119, 365(a), or 365(b), or to claim the benefit of an earlier filing date under section 120, 121, or 365(c), based upon 1 or more prior filed applications for patent, as of the filing date of the earliest such application that describes the subject matter.

See 2011 Amendment note below.

HISTORICAL AND REVISION NOTES

Paragraphs (a), (b), and (c) are based on Title 35, U.S.C., 1946 ed., §31 (R.S. 4886, amended (1) Mar. 3, 1897, ch. 391, §1, 29 Stat. 692, (2) May 23, 1930, ch. 312, §1, 46 Stat. 376, (3) Aug. 5, 1939, ch. 450, §1, 53 Stat. 1212).

No change is made in these paragraphs other than that due to division into lettered paragraphs. The interpretation by the courts of paragraph (a) as being more restricted than the actual language would suggest (for example, "known" has been held to mean "publicly known") is recognized but no change in the language is made at this time. Paragraph (a) together with section 104 contains the substance of Title 35, U.S.C., 1946 ed., §72 (R.S. 4923).

Paragraph (d) is based on Title 35, U.S.C., 1946 ed., §32, first paragraph (R.S. 4887 (first paragraph), amended (1) Mar. 3, 1897, ch. 391, §3, 29 Stat. 692, 693, (2) Mar. 3, 1903, ch. 1019, §1, 32 Stat. 1225, 1226, (3) June 19, 1936, ch. 594, 49 Stat. 1529).

The section has been changed so that the prior foreign patent is not a bar unless it was granted before the filing of the application in the United States.

Paragraph (e) is new and enacts the rule of *Milburn* v. *Davis-Bournonville*, 270 U.S. 390, by reason of which a United States patent disclosing an invention dates from the date of filing the application for the purpose of anticipating a subsequent inventor.

Paragraph (f) indicates the necessity for the inventor as the party applying for patent. Subsequent sections permit certain persons to apply in place of the inventor under special circumstances.

Paragraph (g) is derived from Title 35, U.S.C., 1946 ed., \$69 (R.S. 4920, amended (1) Mar. 3, 1897, ch. 391, \$2, 29 Stat. 692, (2) Aug. 5, 1939, ch. 450, \$1, 53 Stat. 1212), the second defense recited in this section. This paragraph retains the present rules of law governing the determination of priority of invention.

Language relating specifically to designs is omitted for inclusion in subsequent sections.

AMENDMENTS

2011—Pub. L. 112–29 amended section generally. Prior to amendment, section related to conditions for patentability; novelty and loss of right to patent.

2002—Subsec. (e). Pub. L. 107–273, amended Pub. L. 106–113, \$1000(a)(9) [title IV, \$4505]. See 1999 Amendment note below. Prior to being amended by Pub. L. 107–273, Pub. L. 106–113, \$1000(a)(9) [title IV, \$4505], had amended subsec. (e) to read as follows: "The invention was described in—

"(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

"(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a); or".

1999—Subsec. (e). Pub. L. 106–113, §1000(a)(9) [title IV, §4505], as amended by Pub. L. 107–273, amended subsec. (e) generally. Prior to amendment, subsec. (e) read as follows: "the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent, or".

Subsec. (g). Pub. L. 106–113, §1000(a)(9) [title IV, §4806], amended subsec. (g) generally. Prior to amendment, subsec. (g) read as follows: "before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other."

1975—Par. (e). Pub. L. 94–131 inserted provision for nonentitlement to a patent where the invention was described in a patent granted on an international application by another who has fulfilled the requirements of pars. (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

1972—Subsec. (d). Pub. L. 92–358 inserted reference to inventions that were the subject of an inventors' certificate.

EFFECTIVE DATE OF 2011 AMENDMENT

Amendment by Pub. L. 112–29 effective upon the expiration of the 18-month period beginning on Sept. 16, 2011, and applicable to certain applications for patent and any patents issuing thereon, see section 3(n) of Pub. L. 112–29, set out as an Effective Date of 2011 Amendment; Savings Provisions note under section 100 of this title.

EFFECTIVE DATE OF 1999 AMENDMENT

Amendment by section 1000(a)(9) [title IV, §4505] of Pub. L. 106–113 effective Nov. 29, 2000 and applicable to all patents and all applications for patents pending on or filed after Nov. 29, 2000, see section 1000(a)(9) [title IV, §4508] of Pub. L. 106–113, as amended, set out as a note under section 10 of this title.

EFFECTIVE DATE OF 1975 AMENDMENT

Amendment by Pub. L. 94-131 effective Jan. 24, 1978, and applicable on and after that date to patent applica-

tions filed in the United States and to international applications, where applicable, see section 11 of Pub. L. 94–131, set out as an Effective Date note under section 351 of this title.

EFFECTIVE DATE OF 1972 AMENDMENT

Section 3(b) of Pub. L. 92–358 provided that: "Section 2 of this Act [amending this section] shall take effect six months from the date when Articles 1 to 12 of the Paris Convention of March 20, 1883, for the Protection of Industrial Property, as revised at Stockholm, July 14, 1967, come into force with respect to the United States [Aug. 25, 1973] and shall apply to applications thereafter filed in the United States."

SAVINGS PROVISIONS

Provisions of subsec. (g) of this section as in effect on the day before the expiration of the 18-month period beginning on Sept. 16, 2011, apply to each claim of certain applications for patent, and certain patents issued thereon, for which the amendments made by section 3 of Pub. L. 112–29 also apply, see section 3(n)(2) of Pub. L. 112–29, set out as an Effective Date of 2011 Amendment; Savings Provisions note under section 100 of this title.

Section 4 of act July 19, 1952, ch. 950, 66 Stat. 815, provided that subsec. (d) of this section should not apply to existing patents and pending applications, but that the law previously in effect, namely the first paragraph of R.S. 4887 [first paragraph of section 32 of former Title 35], should apply to such patents and applications. Said paragraph of section 32 provided that:

"No person otherwise entitled thereto shall be debarred from receiving a patent for his invention or discovery, nor shall any patent be declared invalid by reason of its having been first patented or caused to be patented by the inventor or his legal representatives or assigns in a foreign country, unless the application for said foreign patent was filed more than twelve months, in cases within the provisions of section 31 of this title, and six months in cases of designs, prior to the filing of the application in this country, in which case no patent shall be granted in this country."

CONTINUITY OF INTENT UNDER THE CREATE ACT

Pub. L. 112-29, §3(b)(2), Sept. 16, 2011, 125 Stat. 287, provided that: "The enactment of section 102(c) of title 35, United States Code, under paragraph (1) of this subsection is done with the same intent to promote joint research activities that was expressed, including in the legislative history, through the enactment of the Cooperative Research and Technology Enhancement Act of 2004 (Public Law 108-453; the 'CREATE Act') [see Short Title of 2004 Amendment note set out under section 1 of this titlel, the amendments of which are stricken by subsection (c) of this section [amending section 103 of this titlel. The United States Patent and Trademark Office shall administer section 102(c) of title 35, United States Code, in a manner consistent with the legislative history of the CREATE Act that was relevant to its administration by the United States Patent and Trademark Office.

TAX STRATEGIES DEEMED WITHIN THE PRIOR ART

Pub. L. 112–29, §14, Sept. 16, 2011, 125 Stat. 327, provided that:

"(a) IN GENERAL.—For purposes of evaluating an invention under section 102 or 103 of title 35, United States Code, any strategy for reducing, avoiding, or deferring tax liability, whether known or unknown at the time of the invention or application for patent, shall be deemed insufficient to differentiate a claimed invention from the prior art.

"(b) DEFINITION.—For purposes of this section, the term 'tax liability' refers to any liability for a tax under any Federal, State, or local law, or the law of any foreign jurisdiction, including any statute, rule, regulation, or ordinance that levies, imposes, or assesses such tax liability.

- "(c) EXCLUSIONS.—This section does not apply to that part of an invention that—
- "(1) is a method, apparatus, technology, computer program product, or system, that is used solely for preparing a tax or information return or other tax filing, including one that records, transmits, transfers, or organizes data related to such filing; or
- "(2) is a method, apparatus, technology, computer program product, or system used solely for financial management, to the extent that it is severable from any tax strategy or does not limit the use of any tax strategy by any taxpayer or tax advisor.
- "(d) RULE OF CONSTRUCTION.—Nothing in this section shall be construed to imply that other business methods are patentable or that other business method patents are valid.
- "(e) EFFECTIVE DATE; APPLICABILITY.—This section shall take effect on the date of the enactment of this Act [Sept. 16, 2011] and shall apply to any patent application that is pending on, or filed on or after, that date, and to any patent that is issued on or after that date."

EMERGENCY RELIEF FROM POSTAL SITUATION AFFECTING PATENT CASES

Relief as to filing date of patent application or patent affected by postal situation beginning on Mar. 18, 1970, and ending on or about Mar. 30, 1970, but patents issued with earlier filing dates not effective as prior art under subsec. (e) of this section as of such earlier filing dates, see section 1(a) of Pub. L. 92–34, formerly set out in a note under section 111 of this title.

§ 103. Conditions for patentability; non-obvious subject matter

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- (b)(1) Notwithstanding subsection (a), and upon timely election by the applicant for patent to proceed under this subsection, a biotechnological process using or resulting in a composition of matter that is novel under section 102 and nonobvious under subsection (a) of this section shall be considered nonobvious if—
 - (A) claims to the process and the composition of matter are contained in either the same application for patent or in separate applications having the same effective filing date; and
 - (B) the composition of matter, and the process at the time it was invented, were owned by the same person or subject to an obligation of assignment to the same person.
- (2) A patent issued on a process under paragraph (1)—
- (A) shall also contain the claims to the composition of matter used in or made by that process, or
- (B) shall, if such composition of matter is claimed in another patent, be set to expire on the same date as such other patent, notwith-standing section 154.
- (3) For purposes of paragraph (1), the term "biotechnological process" means—

- (A) a process of genetically altering or otherwise inducing a single- or multi-celled organism to—
 - (i) express an exogenous nucleotide sequence.
- (ii) inhibit, eliminate, augment, or alter expression of an endogenous nucleotide sequence, or
- (iii) express a specific physiological characteristic not naturally associated with said organism;
- (B) cell fusion procedures yielding a cell line that expresses a specific protein, such as a monoclonal antibody; and
- (C) a method of using a product produced by a process defined by subparagraph (A) or (B), or a combination of subparagraphs (A) and (B).
- (c)(1) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.
- (2) For purposes of this subsection, subject matter developed by another person and a claimed invention shall be deemed to have been owned by the same person or subject to an obligation of assignment to the same person if—
 - (A) the claimed invention was made by or on behalf of parties to a joint research agreement that was in effect on or before the date the claimed invention was made;
 - (B) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and
 - (C) the application for patent for the claimed invention discloses or is amended to disclose the names of the parties to the joint research agreement.
- (3) For purposes of paragraph (2), the term "joint research agreement" means a written contract, grant, or cooperative agreement entered into by two or more persons or entities for the performance of experimental, developmental, or research work in the field of the claimed invention.

(July 19, 1952, ch. 950, 66 Stat. 798; Pub. L. 98–622, title I, §103, Nov. 8, 1984, 98 Stat. 3384; Pub. L. 104–41, §1, Nov. 1, 1995, 109 Stat. 351; Pub. L. 106–113, div. B, §1000(a)(9) [title IV, §4807(a)], Nov. 29, 1999, 113 Stat. 1536, 1501A–591; Pub. L. 108–453, §2, Dec. 10, 2004, 118 Stat. 3596; Pub. L. 112–29, §§3(c), 20(j), Sept. 16, 2011, 125 Stat. 287, 335.)

AMENDMENT OF SECTION

Pub. L. 112–29, \$20(j), (l), Sept. 16, 2011, 125 Stat. 335, provided that, effective upon the expiration of the 1-year period beginning on Sept. 16, 2011, and applicable to proceedings commenced on or after that effective date, this section is amended by striking "of this title" each place that term appears. See 2011 Amendment notes below.

Pub. L. 112–29, §3(c), (n), Sept. 16, 2011, 125 Stat. 287, 293, provided that, effective upon the